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# The Effect of Financial Ratios to Return on Assets of the Sharia Rural Bank in Surakarta Residence



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**ABSTRACT:** The purpose of this study was to determine the effect of Capital Adequacy Ratio, Financing to Deposit Ratio, Non Performing Financing, and Operational Efficiency Ratio on ROA at Sharia Rural Bank. The data used in this study is secondary data (panel data) from Financial Service Authority's (OJK Solo), which is an annual report published by Sharia Rural Bank in the Surakarta Residence listed on the Financial Service Authority's (OJK Solo). Data analysis using multiple linear regression. The result are Capital Adequacy Ratio (CAR) and Financing to Deposit Ratio (FDR) have no significant effect on Return On Asset (ROA), Non Preforming Financing and Operational Efficiency Ratio (OER) have significant effect on Return On Asset (ROA), Simultaneously all of variable Capital Adequacy Ratio, Financing to Deposit Ratio, Non Preforming Financing, and Operational Efficiency Ratio have a significant effect on Return On Asset.

**KEYWORDS:** Capital Adequacy Ratio, Financing to Deposit Ratio, Non Preforming Financing, Operational Efficiency Ratio, Return On Asset, Sharia Rural Bank

# I. INTRODUCTION

In the midst of global and domestic economic conditions which are still affected by the Covid-19 pandemic, banking resilience in general is still maintained, reflected in the condition of bank capital which is solid and shows adequate bank ability to absorb risk (Otoritas Jasa Keuangan, 2021). Banking should continue to improve the performance and soundness of the bank because banks must maintain public trust to want to raise bank funds so that banks can channel funds back to the public. Law number 10 of 1998, the types of banks in Indonesia consist of two groups, namely commercial banks and rural banks (BPR). Rural banks are banks that carry out business activities conventionally or based on sharia principles whose activities do not provide services in payment traffic. BPR is also divided into two types. Namely Conventional Rural Bank (BPR) and Sharia Rural Bank (BPRS). BPRS is one of the developments in the Islamic banking industry. Broadly speaking, BPRS are sharia principled banks whose activities are not much different from conventional BPR but do not use the principle of interest but instead use the principle of profit sharing.

Pratama, Mubaroh and Afriansyah's research in 2021 in a study entitled Effects of CAR, LDR, NIM, BOPO on ROA in the Go Public banking sector on the 2016-2018 IDX, and states that there is influence of CAR, LDR, NIM, and BOPO on ROA both partially and simultaneously. Anindya S, Paula V, and Victoria N's research in 2022 states that partially the Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), has no significant effect on Return on Assets (ROA) at Conventional Rural Banks in Surakarta. Simultaneously the Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non-Performing Loans (NPL), and Operational Income Operating Expenses (BOPO) have a significant effect on Return on Assets (ROA) in Conventional BPR in Surakarta for the 2015-2020 period.

This research was conducted to find out whether there is an influence of Capital Adequacy Ratio, Financing to Deposit Ratio, Non Preforming Financing, and Operational Income Operating Expenses on Return on Assets at BPR Syariah Surakarta Residence which is listed in Solo Financial Services Authority for 2017-2021.

# **II. LITERATURE REVIEW**

# a. Sharia Rural Bank

Sharia Rural Bank (BPRS) is financial bank institutions under the monetary policy board, which carry out their economic activities based on Islamic or sharia principles, without justifying community-oriented interest rates. According to the Financial Services

Authority (OJK), BPRS are banks that carry out business activities based on sharia principles, which in their activities do not provide services in payment traffic.

Just like conventional BPR, BPRS activities are much narrower than those of commercial banks, because BPRS are prohibited from accepting demand deposits, foreign exchange activities, and insurance. Based on Law Number 21 of 2011 concerning the Financial Services Authority, the regulation and supervision of BPRS is carried out by the Financial Services Authority (OJK).

#### b. Return On Assets (ROA)

Return on Assets (ROA) or better known as Return on Investment (ROI) is a ratio that shows the yield (return) on total assets used in a company. This ratio is also a measure of management's effectiveness in managing its investments.

Bank Indonesia prioritizes the profitability value of a bank as measured by ROA because Bank Indonesia prioritizes the profitability value of a bank as measured by assets whose funds mostly come from public deposits so that ROA is more representative in measuring the level of bank profitability (Setiawan et al., 2019).

#### c. Capital Adequacy Ratio (CAR)

The Capital Adequacy Ratio (CAR) is a bank's performance ratio to measure the adequacy of the bank's capital to support assets that contain or generate risk, for example loans. (Setiawan et al., 2019)

#### d. Financing to Deposit Ratio (FDR)

How far the bank provides financing to customers. As well as offsetting the bank's obligation to immediately fulfill requests from fund collectors who want to withdraw the money that has been used by the bank to provide financing. Bank Indonesia's standard for the Financing to Deposit Ratio (FDR) is 80% to 110%.

#### e. Non Performing Financing (NPF)

Explains the amount of non-performing financing, namely financing disbursed by banks. In the Non Performing Financing (NPF) ratio, Bank Indonesia stipulates a policy for each bank to meet the Non Performing Financing standard of less than 5%. And according to OJK, a good NPF standard is less than 7%.

#### f. Operating Expenses and Operating Income (BOPO)

It is the ratio between operating costs to operating income. The lower the BOPO value, the more efficiently the bank uses operational costs in running its business. So that the benefits obtained by the bank will be even greater, and vice versa if the BOPO value is higher, the more inefficient the bank is in using operational costs in its business (Maulana et al., 2021). Bank Indonesia Regulation 2013 stipulates that the maximum ratio of Operating Expenses and Operating Income (BOPO) is 83%.

#### **III. RESEARCH HYPOTHESIS**

# The Effect of Capital Adequacy Ratio to Return on Assets

Research conducted by (Setiawan et al., 2019) states that the Capital Adequacy Ratio (CAR) has a positive and significant effect on Return on Assets (ROA). This is also proven by (Agustin, 2018) that CAR has a significant effect on ROA. Based on this, the hypothesis is formulated as follows:

# Ha1 = There is significant effect of Capital Adequacy Ratio to Return On Assets

#### in the Surakarta Residence listed on the Financial Service Authority's (OJK Solo) for the 2017-2021 period The Effect of Financing to Deposit Ratio to Return on Assets

# Research conducted by (Maulana et al. 2021) states that LDB has a positive

Research conducted by (Maulana et al., 2021) states that LDR has a positive and significant effect on the ROA of commercial banks in Indonesia for the 2017-2019 period. This is also proven by (Sudarmawanti & Pramono, 2017) showing that there is a significant effect between LDR on ROA. Based on this, the hypothesis is formulated as follows:

#### Ha2 = There is significant effect of Financing to Deposit Ratio to Return On

# Assets in the Surakarta Residence listed on the Financial Service Authority's (OJK Solo) for the 2017-2021 period The Effect of Non Performing Financing to Return on Assets

Research conducted by (Agustin, 2018) and research by (Septianti, 2021) states that NPF has a significant influence on ROA. Because if the distribution of profit-sharing financing increases, it will affect the decrease in ROA. Based on this, the hypothesis is formulated as follows:

#### Ha3 = There is significant effect of Non Performing Financing to Return On

# Assets in the Surakarta Residence listed on the Financial Service Authority's (OJK Solo) for the 2017-2021 period The Effect of Operating Expenses Operating Income to Return on Assets

Research conducted (Maulana et al., 2021) research results show BOPO has a negative impact on ROA. So that the smaller the BOPO, the higher the bank's (ROA). Also proven by (Setiawan et al., 2019) the BOPO variable has a negative and significant effect on Return on Assets (ROA). Based on this, the hypothesis is formulated as follows:

# Ha4 = There is significant effect of Operating Expenses Operating Income to

Return On Assets in the Surakarta Residence listed on the Financial Service Authority's (OJK Solo) for the 2017-2021 period The Effect of Capital Adequacy Ratio, Loan To Deposit Ratio, Non Performing Loans, and Operating Expenses Operating Income to Return on Assets

Research conducted by (Anindya, 2019) stated that FDR, NPF, CAR, and BOPO simultaneously affect ROA. This is also proven by (Mileni & Lestari, 2022) that CAR, NOM, NPF, FDR and BOPO simultaneously have a significant influence on Profitability (ROA). Based on this, the hypothesis is formulated as follows:

Ha5 = There is significant influence on Capital Adequacy Ratio, Financing to

Deposit Ratio, Non-Performing Financing, and Operational Expense Operational Income to Return On Assets in the Surakarta Residence listed on the Financial Service Authority's (OJK Solo) for the 2017-2021 period

#### **IV. METHOD**

This research uses secondary data from Sharia Rural Bank in the Surakarta Residence listed on the Financial Service Authority's (OJK Solo) for the 2017-2021 period which has been published. The researcher uses saturated or census sampling so that the researcher uses 7 Sharia Rural Bank (BPRS) in the Surakarta Residence listed on the Financial Service Authority's (OJK Solo), resulting in a total of 7 BPRS x 5 years = 35 data.

#### V. DATA ANALYSIS

#### **Multiple Linear Regression**

The multiple linear regression equation is as follows:

- $Y = \alpha + \beta 1 X 1 + \beta 2 X 2 + \beta 3 X 3 + \beta 4 X 4 + \varepsilon$
- Information:
- Y = Return on Assets (ROA)
- $\alpha$  = Constant

 $\beta$ 1- $\beta$ 4 = Regression coefficient of the variable

X1 = Capital Adequacy Ratio (CAR)

X2 = Financing to Deposit Ratio (FDR)

X3 = Non Performing Financing (NPF)

X4 = Operating Expenses Operating Income (BOPO)

ε = Error term

# **Hypothesis Testing**

a. Individual Parameter Significance Test (t test)

Partial testing to determine whether there is influence from the independent (independent) variable partially on the independent (dependent) variable.

b. Simultaneous Significance Test (F Test)

Simultaneous testing to determine whether or not a significant effect of the independent variables together on the dependent variable.

c. Determination Coefficient Test (R<sup>2</sup>)

The coefficient of determination (R<sup>2</sup>) essentially measures how far the model's ability to explain the variation in the dependent variable. The value of the coefficient of determination is between zero and one. The value of the coefficient of determination can be measured by the value of R-square or adjusted R-square.

# VI. RESULT AND DISCUSSION

# **Multiple Regression Analysis**

Based on the multiple regression analysis test, it can be seen that the multiple linear regression equation model in this study is as follows,

 $Y = 6.679 + 0.018 \text{ CAR} + 0.007 \text{ FDR} - 0.085 \text{ NPF} - 0.064 \text{ BOPO} + \epsilon$ 

#### **Hypothesis Testing**

# a. Individual Parameter Significance Test (t test)

Table 1 T Test Result

Variabel	Unstandardized Coefficients		Standardized Coefficients	т	Sig.	Kesimpulan	
	В	Std. Error	Beta				
		0.01 0.000			<i>.</i> .		D 0740

Konstanta	6.679	1.182		5.649	0.000	
CAR	0.018	0.028	0.046	0.655	0.517	Not Significant Effect
FDR	0.007	0.007	0.076	1.076	0.290	Not Significant Effect
NPF	-0.085	0.039	-0.176	-2.153	0.040	Significant Effect
BOPO	-0.064	0.006	-0.823	-10.071	0.000	Significant Effect

Source: Secondary data processed, 2022

Based on the decision-making criteria in testing the hypothesis in the table above, it shows that there is no significant effect between the CAR variable on ROA or the first hypothesis is rejected. The FDR significance value indicates that there is no significant effect between the FDR variable on ROA or the first hypothesis is rejected. The NPF significance value indicates that there is a significant influence between the NPF variables on ROA or the first hypothesis is accepted. The BOPO significance value indicates that there is a significant effect between the BOPO variable on ROA or the first hypothesis is accepted.

#### b. Simultaneous Significance Test (F Test)

#### Table 2 F Test Result

М	odel	F Sig		Kesimpulan		
1	Regression	47.679	0.000 <sup>b</sup>	Significant		
Source: Secondary data processed, 2022						

Based on the decision-making criteria in testing the hypothesis using the F test in the table above, the Fcount value is 47.679 > Ftable 2.699 and the Sig value is 0.000 meaning that the independent variables simultaneously have a significant effect on the dependent variable.

c. Determination Coefficient Test (R<sup>2</sup>)

d.

 Table 3 Determination Coefficient Test Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.930ª	.864	.846	1.09691

**Source:** Secondary data processed, 2022

Based on the results of the coefficient of determination test in the table above, it can be seen that the coefficient of determination or Adjusted R Square is 0.846 or 85%. This value indicates that ROA is affected by CAR (X1), FDR (X2), NPF (X3), and BOPO (X4) of 85%, while the remaining 15% is influenced by other factors not examined in this study.

#### DISCUSSION RESULT

Based on the data analysis performed, the interpretation of the results obtained is as follows:

- 1. Partial Test
- a. Effect of Capital Adequacy Ratio (CAR) on Return On Assets (ROA)The CAR variable in this study has no significant effect on ROA. So that H1 is rejected. It is possible that CAR has an influence on ROA because of the risk weight originating from credit. With an increase in credit, there will be an increase in risk-weighted total assets, which means it will also reduce CAR. The decrease in CAR caused by an increase in credit resulted in more bank interest income. This increases profit before tax so that ROA will increase. CAR is an indicator of capital adequacy used to assess the soundness of a bank. If CAR increases, the bank's ability to bear financing risks also increases. This is in line with research that has been conducted by (Ibrahim & Amoah, 2020); (Maulana et al., 2021)
- b. Effect of Financing to Deposit Ratio (FDR) on Return On Assets (ROA) The FDR variable in this study has no significant effect on ROA. So that H1 is rejected. FDR has no significant effect on ROA, which can be caused by the financing channeled by banks that has not been running effectively and optimally. Thus causing non-current financing to increase in line with the total financing disbursed by the bank. This is in line with research that has been conducted by (Reswanty, 2019); (Mileni & Lestari, 2022).

- c. Effect of Non Performing Financing (NPF) on Return On Assets (ROA) The NPF variable has a significant effect on ROA. Because if the distribution of profit-sharing financing increases, it will affect the decrease in ROA, and vice versa. This is in line with research conducted by (Agustin, 2018); (Septianti, 2021).
- d. Effect of Operating Expenses Operating Income (BOPO) on Return On Assets (ROA) The BOPO variable has a significant effect on ROA. The smaller the BOPO, the higher the ROA and vice versa. Because if the operational costs are greater, the bank's operating income will decrease. This affects the reduction in the bank's total pre-tax profit and in the end there is a decrease in ROA. This is in line with research that has been conducted by (Anindya, 2019); (Dewanti et al., 2022).

# 2. Simultaneous Test

Based on the results of the F test, the variables Capital Adequacy Ratio, Financing to Deposit Ratio, Non Performing Financing, and Operating Expenses Operating Income together have a significant effect on Return On Assets.

# 3. Coefficient of Determination (R<sup>2</sup>) Test

Based on the results of the regression test, it can be seen that the value of the adjusted R square is 0.846. This means that at 85%, Capital Adequacy Ratio, Financing to Deposit Ratio, Non Performing Financing, and Operational Income Operating Expenses are able to explain Return On Assets while at 15%, Return On Assets is explained by other variables outside the regression model.

# CONCLUSION

Based on the results of the discussion and data processing carried out, it is concluded that:

- a. Capital Adequacy Ratio has no significant effect on Return on Assets. This is in line with research that has been conducted by (Ibrahim & Amoah, 2020); (Maulana et al., 2021) that CAR has no significant effect on ROA.
- b. Financing to Deposit Ratio has no significant effect on Return on Assets. This is in line with research that has been conducted by (Mileni & Lestari, 2022; Reswanty, 2019) that partially FDR has no significant effect on ROA.
- c. There is a significant effect of Non Performing Financing on Return on Assets. This is in line with research conducted by (Agustin, 2018) and research by (Septianti, 2021) concluded that there is a significant effect between NPF on ROA.
- d. There is a significant effect of Operating Expenses Operating Income on Return on Assets. This is in line with research that has been conducted by (Maulana et al., 2021) and (Setiawan et al., 2019) which concluded that the BOPO variable has a significant effect on ROA.
- e. There is a significant effect of the Capital Adequacy Ratio, Financing To Deposit Ratio, Non Performing Financing, and Operating Expenses Operating Income on Return On Assets simultaneously. This is in line with research that has been conducted by (Mileni & Lestari, 2022; Reswanty, 2019) that CAR, NPF, FDR and BOPO simultaneously have a significant influence on Profitability (ROA).

# Suggestion

1. For Further Researchers

Because of this study using time series data, autocorrelation testing is needed and it can be concluded that when the Durbin-Watson test was carried out, problems with processing results were found to be inconclusive, so future researchers can pay attention to the data used. Researchers can add data/variables. The variables that can be used as a reference are Net Operating Margin (NOM) and Earning Assets Quality (KAP). Researchers can also use other research objects.

# 2. For Sharia Rural Banks (BPRS)

BPRS management is expected to pay attention to the management of financial ratios and improve their performance, which affects the level of profitability or ROA. As well as pay attention to the soundness of the bank. One of them is by monitoring by paying attention to the value of the CAR ratio, FDR ratio, NPF ratio, and BOPO ratio value. BPRS can also use the Financial Information Service System (SLIK) managed by OJK to find out the history of customers and prospective customers in order to minimize existing risks.

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